# RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/550,662
Source: IFWP
Date Processed by STIC: 6/14/06

# *ENTERED*

IFWP

**RAW SEQUENCE LISTING** DATE: 06/14/2006
PATENT APPLICATION: **US/10/550,662** TIME: 10:00:58

Input Set : **A:\8030-364US1.TXT**
Output Set: **N:\CRF4\06142006\J550662.raw**

```
      4 <110> APPLICANT: Sylvia Helen Duncan
      5       Harry James Flint
      6       Rowett Research Institute
      8 <120> TITLE OF INVENTION: Lactic Acid Utilising Bacteria And Their
      9       Therapeutic Use
     11 <130> FILE REFERENCE: 08830-0364US1
     13 <140> CURRENT APPLICATION NUMBER: 10/550,662
C--> 14 <141> CURRENT FILING DATE: 2005-09-26
     16 <150> PRIOR APPLICATION NUMBER: GB0307026.5
     17 <151> PRIOR FILING DATE: 2003-03-27
     19 <160> NUMBER OF SEQ ID NOS: 10
     21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     23 <210> SEQ ID NO: 1
     24 <211> LENGTH: 20
     25 <212> TYPE: DNA
     26 <213> ORGANISM: Artificial Sequence
     28 <220> FEATURE:
     29 <223> OTHER INFORMATION: Primer
     31 <400> SEQUENCE: 1
     32 agagtttgat cmtggctcag                                          20
     34 <210> SEQ ID NO: 2
     35 <211> LENGTH: 21
     36 <212> TYPE: DNA
     37 <213> ORGANISM: Artificial Sequence
     39 <220> FEATURE:
     40 <223> OTHER INFORMATION: Primer
     42 <400> SEQUENCE: 2
     43 acggctacct tgttacgact t                                        21
     45 <210> SEQ ID NO: 3
     46 <211> LENGTH: 18
     47 <212> TYPE: DNA
     48 <213> ORGANISM: Artificial Sequence
     50 <220> FEATURE:
     51 <223> OTHER INFORMATION: Primer
     53 <400> SEQUENCE: 3
     54 cagcmgccgc ggtaatwc                                           18
     56 <210> SEQ ID NO: 4
     57 <211> LENGTH: 18
     58 <212> TYPE: DNA
     59 <213> ORGANISM: Artificial Sequence
     61 <220> FEATURE:
     62 <223> OTHER INFORMATION: Primer
     64 <400> SEQUENCE: 4
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Input Set : **A:\8830-364US1.TXT**
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65 gwattaccgc ggckgctg 18
67 <210> SEQ ID NO: 5
68 <211> LENGTH: 20
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: Primer
75 <400> SEQUENCE: 5
76 aaactcaaak gaattgacgg 20
78 <210> SEQ ID NO: 6
79 <211> LENGTH: 20
80 <212> TYPE: DNA
81 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Primer
86 <400> SEQUENCE: 6
87 ccgtcaattc mtttragttt 20
89 <210> SEQ ID NO: 7
90 <211> LENGTH: 1450
91 <212> TYPE: DNA
92 <213> ORGANISM: Eubacterium hallii (Strain D6 1L/1)
94 <400> SEQUENCE: 7
95 gatgaacgct ggcggcgtgc ctaacactgc aagtcgaacg aagcacctta cctgattctt 60
96 cggatgaagg tctggtgact gagtggcgga cgggtgagta acgcgtgggt aacctgccct 120
97 gtacaggggg ataacagttg gaaacggctg ctaataccgc ataagcgcac gagaggacat 180
98 cctcttgtgt gaaaaactcc ggtggtacag gatgggcccg cgtctgatta gctggttggc 240
99 agggtaacgg cctaccaagg cgacgatcag tagccggtct gagaggatga acggccacat 300
100 tggaactgag acacggtcca actcatacgg gaggcagcag tggggaatat tgcacaatgg 360
101 gggaaaccct gatgcagcaa cgccgcgtga gtgaagaagt atttcggtat gtaaagctct 420
102 atcagcaggg aagataatga cggtacctga ctaagaagct ccggctaaat acgtgccagc 480
103 agccgcggta atacgtatgg agcaagcgtt atccggattt actgggtgta aagggtgcgt 540
104 aggtggcagt gcaagtcaga tgtgaaaggc cggggctcaa ccccggagct gcatttgaaa 600
105 ctgcatagct agagtacagg agaggcaggc ggaattccta gtgtagcggt gaaatgcgta 660
106 gatattagga ggaacaccag tggcgaaggc ggcctgctgg actgttactg acactgaggc 720
107 acgaaagcgt ggggagcaaa caggattaga taccctggta gtccacgccg taaacgatga 780
108 atactaggtg tcggggccgt ataggcttcg gtgccgtcgc aaacgcagta agtattccac 840
109 ctggggagta cgttcgcaag aatgaaactc aaaggaattg acggggaccc gcacaagcgg 900
110 tggagcatgt ggtttaattc gaagcaacgc gaagaacctt accaggtctt gacatccttc 960
111 tgaccactcc gtaatgggag tcttccttcg ggacagaaga gacaggtggt gcatggttgt 1020
112 cgtcagctcg tgtcgtgaga tgttgggtta agtcccgcaa cgagcgcaac ccctatcttc 1080
113 agtagccagc aggtaaggct gggcactctg gagagactgc cagggataac ctggaggaag 1140
114 gtggggacga cgtcaaatca tcatgccccc tatgatctgg gcgacacacg tgctacaatg 1200
115 gcggtcacaa agtgaggcga acctgcgagg gggagcaaac cacaaaaagg ccgtcccagt 1260
116 tcggactgta gtctgcaacc cgactacacg aagctggaat cgctagtaat cgcgaatcag 1320
117 aatgtcgcgg tgaatacgtt cccgggtctt gtacacaccg cccgtcacac catgggagtc 1380
118 ggaaatgccc gaagccagtg acccaaccat atggagggag ctgtcgaagg tggagccggt 1440
119 aactggggtg 1450
121 <210> SEQ ID NO: 8
122 <211> LENGTH: 1458

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Input Set : **A:\8830-364US1.TXT**
Output Set: **N:\CRF4\06142006\J550662.raw**

123 <212> TYPE: DNA
124 <213> ORGANISM: Eubacterium hallii (Strain SM 6/1)
126 <220> FEATURE:
127 <221> NAME/KEY: misc_feature
128 <222> LOCATION: (1263)...(1263)
129 <223> OTHER INFORMATION: n = a, t, c or g
131 <221> NAME/KEY: misc_feature
132 <222> LOCATION: (1427)...(1427)
133 <223> OTHER INFORMATION: n = a, t, c or g
**W--> 135 <221> misc_feature**
136 <222> LOCATION: (1455)...(1456)
137 <223> OTHER INFORMATION: n = a, t, c or g
**W--> 139 <400> 8**
140 gatgaacgct ggcggcgtgc ctaacacatg caagtcgaac gaagcacctt acgagattct 60
141 tcggatgatc gtttggtgac tgagtggcgg acgggtgagt aacgcgtggg taacctgccc 120
142 tgtacagggg gataacagct ggaaacggct gctaataccg cataagcgca cgaggagaca 180
143 tctcctagtg tgaaaaactc cggtggtaca ggatgggccc gcgtctgatt agctggttgg 240
144 cagggtaacg gcctaccaag gcaacgatca gtagccggtc tgagaggatg aacggccaca 300
145 ttggaactga gacacggtcc aaactcctac gggaggcagc agtggggaat attgcacaat 360
146 gggggaaacc ctgatgcagc aacgccgcgt gagtgaagaa gtatttcggt atgtaaagct 420
147 ctatcagcag ggaagataat gacggtacct gactaagaag ctccggctaa atacgtgcca 480
148 gcagccgcgg taatagatat ggagcaagcg ttatccggat ttactgggtg taaagggtgc 540
149 gtaggtggca gtgcaagtca gatgtgaaag gccggggctc aaccccggag ctgcatttga 600
150 aactgcwyrg ctagagtaca ggagaggcag gcggaattcc tagtgtagcg gtgaaatgcg 660
151 tagatattag gaggaacacc agtggcgaag gcggcctgct ggactgttac tgacactgag 720
152 gcacgaaagc gtggggagca aacaggatta gataccctgg tagtccacgc cgtaaacgat 780
153 gaatactagg tgtcggggcc gtataggctc cggtgccgcc gctaacgcag taagtattcc 840
154 acctggggag tacgttcgca agaatgaaac tcaaaggaat tgacggggac ccgcacaagc 900
155 ggtggagcat gtggtttaat tcgaagcaac gcgaagaacc ttaccaggtc ttgacatcct 960
156 tctgaccgca ccttaatcgg tgctttcctt cgggacagaa gagacaggtg gtgcatggtt 1020
157 gtcgtcagct cgtgtcgtga gatgttgggt taagtcccgc aacgagcgca acccctatct 1080
158 tcagtagcca gcaggtaagg ctgggcactc tggagagact gccagggata acctggagga 1140
159 aggtggggac gacgtcaaat catcatgccc cttatgatct gggcgacaca cgtgctacaa 1200
160 tggcggtcac agagtgaggc gaacccgcga gggggagcaa accacaaaaa ggccgtccca 1260
**W--> 161 gtncggactg tagtctgcaa cccgactaca cagaagctgg aatcgctagt aatcgcgaat 1320**
162 cagaatgtcg cggtgaatac gttcccgggt cttgtacaca ccgcccgtca caccatggga 1380
**W--> 163 gtcggaaatg cccgaagcca gtgacccaac ctttatgaag gaagccngtc caaggttgaa 1440**
**W--> 164 cccgttaact ggggnntt 1458**
166 <210> SEQ ID NO: 9
167 <211> LENGTH: 1477
168 <212> TYPE: DNA
169 <213> ORGANISM: Ruminococcus gnavus
171 <400> SEQUENCE: 9
172 gagtttgatc ctggctcagg atgaacgctg gcggcgtgcc taacacatgc aagtcgaacg 60
173 aggtatattg aattgaagtt ttcggatgga tttcaatgat accgagtggc ggacgggtga 120
174 gtaacgcgtg ggtaacctgc ctcatacagg gggataacgg ttagaaatga ctgctaatac 180
175 cgcataagcg cacagtaccg catggtacgg tgtgaaaaac tccggtggta tgagatggac 240
176 ccgcgtctga ttagctagtt ggtggggtaa cggcccacca aggcgacgat cagtagccga 300
177 cctgagaggg tgaccggcca cattgggact gagacacggc ccagactcct acgggaggca 360

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Input Set : **A:\8830-364US1.TXT**
Output Set: **N:\CRF4\06142006\J550662.raw**

178 gcagtggggg atattgcaca atggaggaaa ctctgatgca gcgacgccgc gtgagtgaag 420
179 aagtatttcg gtatgtaaag ctctatcagc agggaagaaa atgacggtac ctgactaaga 480
180 agccccggct aactacgtgc cagcagccgc ggtaatacgt agggggcaag cgttatccgg 540
181 atttactggg tgtaaaggga gcgtagacgg cgacgcaagt ctgaagtgaa atacccgggc 600
182 tcaacctggg aactgctttg gaaactgtgt tgctagagtg ctggagaggt aagcggaatt 660
183 cctagtgtag cggtgaaatg cgtagatatt aggaagaaca ccagtggcga aggcggctta 720
184 ctggacagta actgacgttg aggctcgaaa gcgtggggag caaacaggat tagataccct 780
185 ggtagtccac gccgtaaacg atgaatacta ggtgttggtg agcaaagctc atcggtgccg 840
186 ccgcaaacgc aataagtatt ccacctgggg agtacgttcg caagaatgaa actcaaagga 900
187 attgacgggg acccgcacaa gcggtggagc atgtggttta attcgaagca acgcgaagaa 960
188 ccttaccaaa tcttgacatc cctctgaaaa ryccyttaat cggrttcctc cttcgggaca 1020
189 gaggtgacag gtggtgcatg gttgtcgtca gctcgtgtcg tgagatgttg ggttaagtcc 1080
190 cgcaacgagc gcaaccccta ttgtcagtag ccagcaggtg aagctgggca ctctgatgag 1140
191 actgccaggg ataacctgga ggaaggtggg gatgacgtca aatcatcatg ccccttatga 1200
192 tttgggctac acacgtgcta caatggcgta aacaaagaga agcgagcctg cgaggggcag 1260
193 caaatctcaa aaataacgtc tcagttcgga ttgtagtctg caactcgact acatgaagct 1320
194 ggaatcgcta gtaatcgcag atcagaatgc tgcggtgaat acgttcccgg gtcttgtaca 1380
195 caccgcccgt cacaccatgg gagtcggaaa tgcccgaagc cagtgaaccc aatgcgaaag 1440
196 cagggagctg tcgaaggcag gtctgataac tggggtg 1477
198 <210> SEQ ID NO: 10
199 <211> LENGTH: 1493
200 <212> TYPE: DNA
201 <213> ORGANISM: Clostridium indolis
203 <400> SEQUENCE: 10
204 agagtttgat cctggctcag gatgaacgct ggcggcgtgc ttaacacatg caagtcgaac 60
205 gaaacacctt atttgatttt cttcggaact gaagatttgg tgattgagtg gcggacgggt 120
206 gagtaacgcg tgggtaacct gccctgtaca gggggataac agtcagaaat gactgctaat 180
207 accgcataag accacagcac cgcatggtgc aggggtaaaa actccggtgg tacaggatgg 240
208 acccgcgtct gattagctgg ttggtgaggt aacggctcac caaggcgacg atcagtagcc 300
209 ggcttgagag agtgaacggc cacattggga ctgagacacg gcccaaactc ctacgggagg 360
210 cagcagtggg gaatattgca caatggggga aaccctgatg cagcgacgcc gcgtgagtga 420
211 agaagtatct cggtatgtaa agctctatca gcagggaaga aaatgacggt acctgactaa 480
212 gaagccccgg ctaactacgt gccagcagcc gcggtaatac gtaggggcga agcgttatcc 540
213 ggaattactg ggtgtaaagg gtgcgtaggt ggtatggcaa gtcagaagtg aaaacccagg 600
214 gcttaactct gggactgctt ttgaaactgt cagactggag tgcaggagag gtaagcggaa 660
215 ttcctagtgt agcggtgaaa tgcgtagata ttaggaggaa catcagtggc gaaggcggct 720
216 tactggactg aaactgacac tgaggcacga aagcgtgggg agcaaacagg attagatacc 780
217 ctggtagtcc acgccgtaaa cgatgaatac taggtgtcgg ggccgtagag gcttcggtgc 840
218 cgcagccaac gcagtaagta ttccacctgg ggagtacgtt cgcaagaatg aactcaaagg 900
219 aattgacggg gacccgcaca agcggtggag catgtggttt aattcgaagc aacgcgaaga 960
220 accttacctg gtcttgacat ccttctgacc ggtccttaac cggacctttc cttcgggaca 1020
221 ggagtgacag gtggtgcatg gttgtcgtca gctcgtgtcg tgagatgttg ggttaagtcc 1080
222 cgcaacgagc gcaaccccta tctttagtag ccagcatata aggtgggcac tctagagaga 1140
223 ctgccaggga taacctggag gaaggtgggg acgacgtcaa atcatcatgc cccttatgac 1200
224 cagggctaca cacgtgctac aatggcgtaa acagagggaa gcagcctcgt gagagtgagc 1260
225 aaatcccaaa aataacgtct cagttcggat tgtagtctgc aactcgacta catgaagctg 1320
226 gaatcgctag taatcgcgaa tcagaatgtc gcggtgaata cgttcccggg tcttgtacac 1380
227 accgcccgtc acaccatggg agtcagtaac gcccgaagtc agtgacccaa ccgtaaggag 1440
228 gagctgccga agcgggaccg ataactgggg tgaagtcgta accaggtagc cgt 1493

**RAW SEQUENCE LISTING ERROR SUMMARY** DATE: 06/14/2006
PATENT APPLICATION: **US/10/550,662** TIME: 10:00:59

Input Set : **A:\8830-364US1.TXT**
Output Set: **N:\CRF4\06142006\J550662.raw**

**Please Note:**
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.**

Seq#:8; N Pos. 1263,1427,1455,1456

**VERIFICATION SUMMARY** DATE: 06/14/2006
PATENT APPLICATION: **US/10/550,662** TIME: 10:00:59

Input Set : **A:\8830-364US1.TXT**
Output Set: **N:\CRF4\06142006\J550662.raw**

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:135 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:139 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:1260
L:163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:1380
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:1440